

CLAIMS

1. (Currently Amended) A method comprising:

forming, by a client which is a device configured to provide virtual tuner function, a request for Electronic Programming Guide (EPG) data for communication to a EPG provider over a network, the request including a client identification to identify the client such that the EPG provider is capable to identify an access right of the client, EPG data including data that describes characteristics of a content that is provided by a content provider remotely over the network, EPG data being processed by the EPG provider into a suitable form for storage and processed on the client;

receiving, by the client, EPG data from the EPG provider;

examining, by the client, to find one or more locally available contents for output on the client, the locally available contents including:

a local content previously stored on the client from a broadcast of a content provider over the network; and

a local content that is available for output through execution of one or more applications installed on the client, the one or more applications including:

a web browser;

a game application; and

an application that is utilized to output television program;

receiving generating, by a ~~the~~ client which is a device configured to provide virtual tuner function, a EPG Electronic Programming Guide (EPG) data for display based on EPG data received from the EPG provider and a result of the examining, the

EPG including a plurality of representations of a plurality of contents for simultaneous display by the client, wherein:

~~EPG data originate from a server;~~

~~EPG data is processed by the server into a suitable form for storage and processed on the client;~~

~~at least one said content is television programming for receipt by the client over an internet;~~

~~the client includes a plurality of applications;~~

~~one or more said content is provided for output by a respective said application;~~

and

~~outputting, by the client, a the EPG including a plurality of representations of a plurality of contents for simultaneous display by the client, wherein:~~

~~the plurality of contents includes remote content available over the server represented by EPG data from the server and local content available locally on the client;~~

the plurality of contents include:

_____ a television programming for receipt by the client over a network;

_____ a video-on-demand (VOD); and

_____ an interactive video game;

~~the EPG is configured to form one or more events in response to a user interaction with one or more said representations, wherein the one or more events are based on information other than application identification information originating from the server;~~

outputting, by the client, the EPG;

forming, by the client, a selection that identifies a content selected by a user through interaction with the EPG, the selection specifying a content type and a content ID of the selected content, the content type being utilized to indicate a type of application that is suitable for processing the content, the content ID being utilized to identify the content;

executing-utilizing, by the client, a virtual tuner executed on the client in response to the selection to unify execution of the plurality of applications, the utilizing including:

to manage managing execution of each said plurality of applications to provide respective said content represented by the EPG in response to the events formed utilizing the EPG, said virtual tuner utilizing an application identification table that includes a listing of the one or more applications to enable execution of each of said plurality of applications, ~~the executing;~~

launching one or more of the plurality of applications that have a content type that matches the content type of the selection;

passing the content ID to the application such that the application is capable to locate the content for output;

managing a lifecycle of each said application to output respective said content represented by the EPG automatically and without the user intervention, wherein the lifecycle includes:

launching the said application;

rendering the respective said content represented by the EPG on respective windows that are displayed on a display device, each window

being utilized to display an output for the said content executed by the respective said application;

managing one or more windows that are displayed on a display device, the managing including managing place of the one or more windows displayed on the display device; and

terminating the said application when output of the content is completed;

utilizing, by the client, the virtual tuner executed on the client in response to an event, relating to a working background of the one or more applications, not to be executed by a particular application, the utilizing including:

switching from a display device to another; and

changing color of a display of rendered content; and

utilizing, by the client, the virtual tuner executed on the client in response to an event requiring additional application or hardware resource to output a content, to initiate a process to include additional functionality to output the content.

2. (Canceled)

3. (Canceled) ~~The method as described in claim 1, wherein the virtual tuner manages the execution by:~~

~~launching one or more said applications for outputting said content~~

~~selected utilizing the EPG; and~~

~~terminating the one or more said applications when the outputting is completed.~~

4. (Canceled)

5. (Previously Presented) The method as described in claim 1, wherein the managing of the one or more windows includes displaying the at least one said window in a foreground of a display in response to one or more said events.

6. (Original) The method as described in claim 1, wherein said content provided by a first said application is not compatible with a second said application.

7. (Canceled)

8. (Original) One or more computer readable-media comprising computer executable instructions that, when executed on a computer, direct the computer to perform the method of claim 1.

9. (Previously Presented) In a virtual tuner executed on a client, a method comprising:

receiving, by the virtual tuner, a selection made from a plurality of content using an EPG that is output by the client, wherein:

the EPG includes a representation of each said content for simultaneous display by the client;

each said content is provided for output by a respective one or more of a plurality of applications; and

at least one said content is television programming;

choosing, by the virtual tuner, one or more of the plurality of applications that, when executed, provide the selected content represented by the EPG, wherein the choosing is independent of any application identifying information originating from a computer distinct from the client; and

managing, by the virtual tuner, execution of the chosen one or more applications to output the selected content.

10. (Original) The method as described in claim 9, wherein the managing includes:

launching the chosen one or more applications for outputting the selected said content; and

terminating the chosen one or more applications when the outputting is completed or an event is received from the EPG.

11. (Original) The method as described in claim 9, wherein the managing is performed in response to one or more events received from the EPG.

12. (Original) The method as described in claim 9, wherein the managing includes managing a lifecycle of the chosen one or more applications.

13. (Original) The method as described in claim 9, wherein said content provided by a first said application is not compatible with a second said application.

14. (Original) The method as described in claim 9, wherein:
the managing includes managing one or more windows; and
at least one said window is utilized to display the selected content.

15. (Original) The method as described in claim 9, wherein the plurality of content includes remote content available over the Internet and local content available locally on the client.

16. (Original) One or more computer readable-media comprising computer executable instructions that, when executed on a computer, direct the computer to perform the method of claim 9.

17-24. (Canceled)

25. (Previously Presented) A client comprising:
a processor;
a network interface, communicatively coupled to the processor, configured to provide a network connection to a wide area network (WAN);

a output interface, communicatively coupled to the processor, configured to provide an output for rendering by a display device; and

a memory configured to maintain:

a plurality of applications that are executable on the processor to provide an output of content on the output interface, wherein at least one said content is television programming received at the network interface;

an EPG engine that is executable on the processor to provide an EPG for output on the output interface, wherein the EPG simultaneously displays a plurality of representations of said content for selection; and

a virtual tuner that is executable on the processor to launch one or more of said plurality of applications in response to selection of said content represented by the EPG, independent of any application identifying information originating from a computer distinct from the client, said virtual tuner utilizing an application identification table that includes a listing of one or more applications to enable execution of each of said plurality of applications.

26. (Original) The client as described in claim 25, wherein the virtual tuner is further executable to terminate execution of the one or more said applications.

27. (Original) The client as described in claim 25, wherein the virtual tuner is further executable to:

manage one or more windows corresponding to the plurality of applications; and

at least one said window includes a display of the selected said content.

28. (Original) The client as described in claim 25, wherein:
the network interface is configured as a tuner for receiving one or more
broadcasts of the television programming over the WAN; and
the WAN is configured as a broadcast network.

29. (Original) The client as described in claim 25, wherein the
content provided by a first said application is not compatible with a second said
application.

30. (Original) The client as described in claim 25, wherein the
WAN is the Internet.

31. (Original) The client as described in claim 25, wherein the
content includes remote content available over the WAN and local content available
locally on the client.

32. (Previously Presented) A system comprising:
a network;
an EPG provider communicatively coupled to the network and including remote
EPG data that describes remote content that is available over the network, the remote
content including television programming;

a client communicatively coupled to the network, the client including:

one or more processors and a plurality of applications that are executable thereon to provide at least one of local content and the remote content for rendering on a display device, wherein said content provided by a first said application is not compatible with a second said application, wherein the EPG includes a plurality of representations, and wherein at least one said representation represents the remote content and another said representation represents the local content;

local EPG data that describes the local content;

a guide application that is executable to generate an EPG from the remote and local EPG content that is configured to initiate one or more events, the remote and local EPG content simultaneously displayed by the EPG, and wherein the guide application is further executable to generate the local EPG data by examining the client; and

a virtual tuner that is executable to manage one or more of said plurality of applications in response to selection of said content represented by the EPG, said virtual tuner utilizing an application identification table that includes a listing of one or more applications to enable execution of each of the plurality of applications independent of any application identifying information originating from a computer distinct from the client.

33. (Original) The system as described in claim 32, the virtual tuner manages the plurality of applications by:

launching one or more of the plurality of applications to process at least one of the local and remote content; and

terminating the one or more said applications when provision of the content is completed.

34. (Canceled)

35. (Canceled)

36. (Original) The system as described in claim 32, wherein the virtual tuner manages a lifecycle of each said application.

37. (Original) The system as described in claim 32, wherein the virtual tuner further manages one or more windows that include a display of at least one of the local and remote content.

38-40. (Canceled)